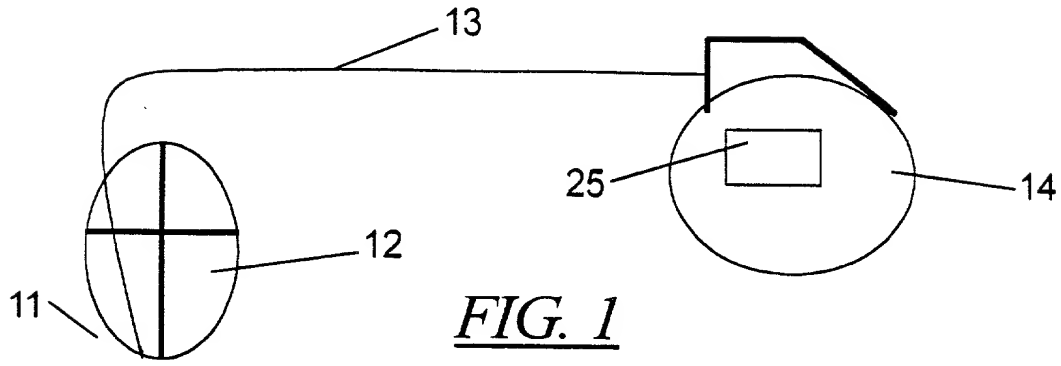
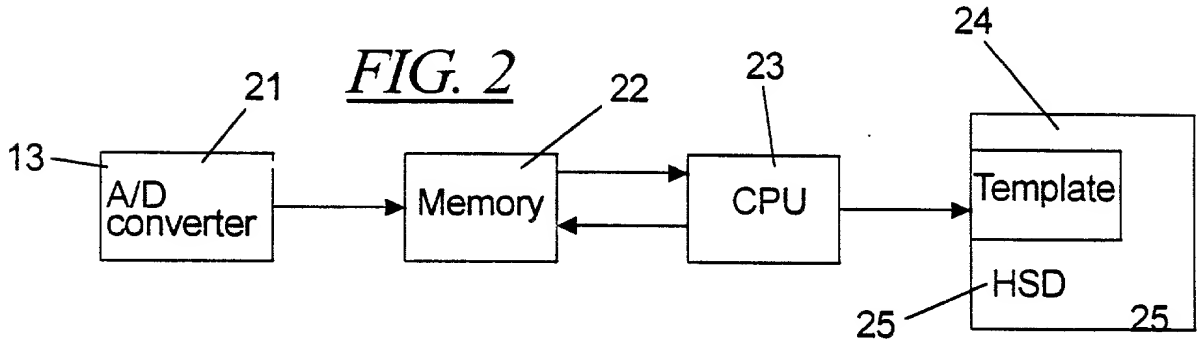


FIG. 1

FIG. 2



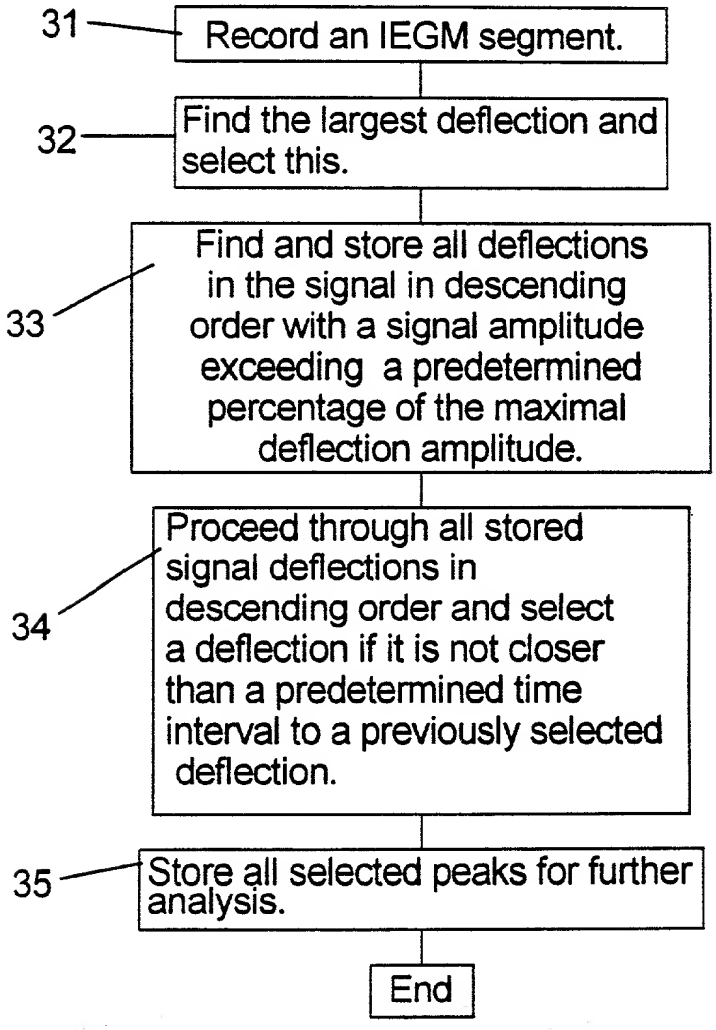


FIG. 3

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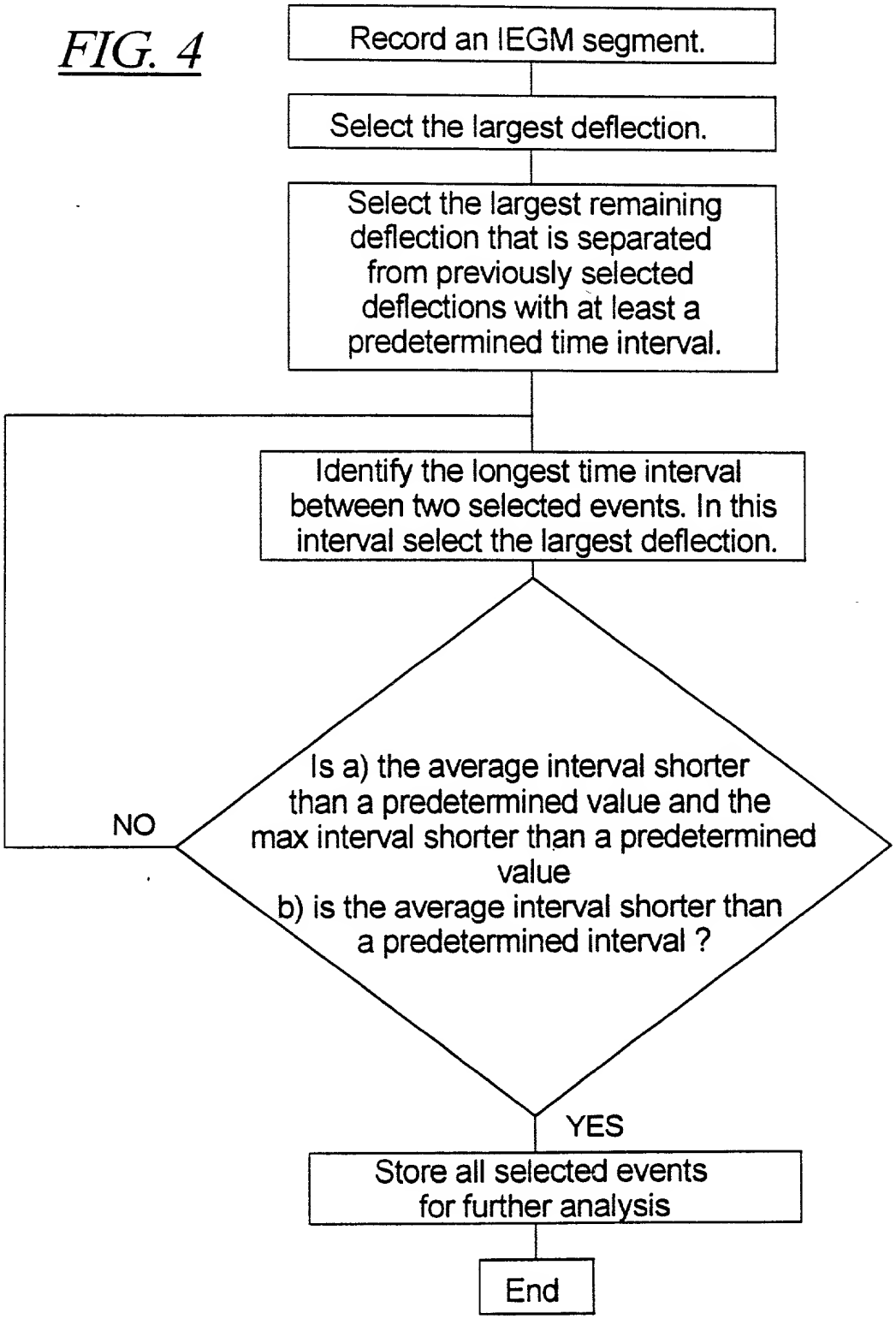
FIG. 4


Record an IEGM segment.
Select the largest deflection.
Select the largest remaining deflection that is separated from previously selected deflections with at least a predetermined time interval.
Identify the longest time interval between two selected events. In this interval select the largest deflection.
Is a) the average interval shorter than a predetermined value and the max interval shorter than a predetermined value
b) is the average interval shorter than a predetermined interval ?
NO
YES
Store all selected events for further analysis
End

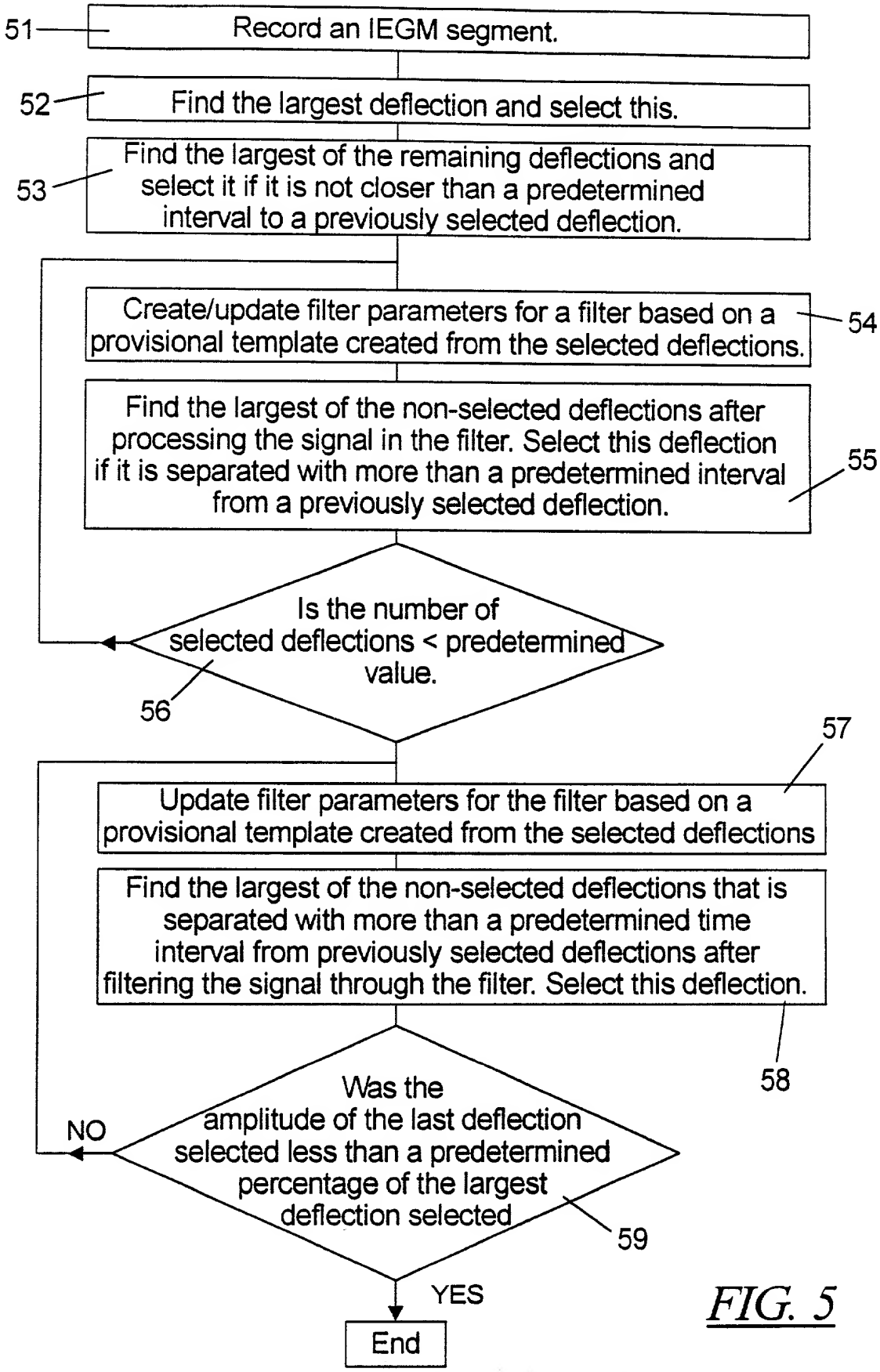


FIG. 5

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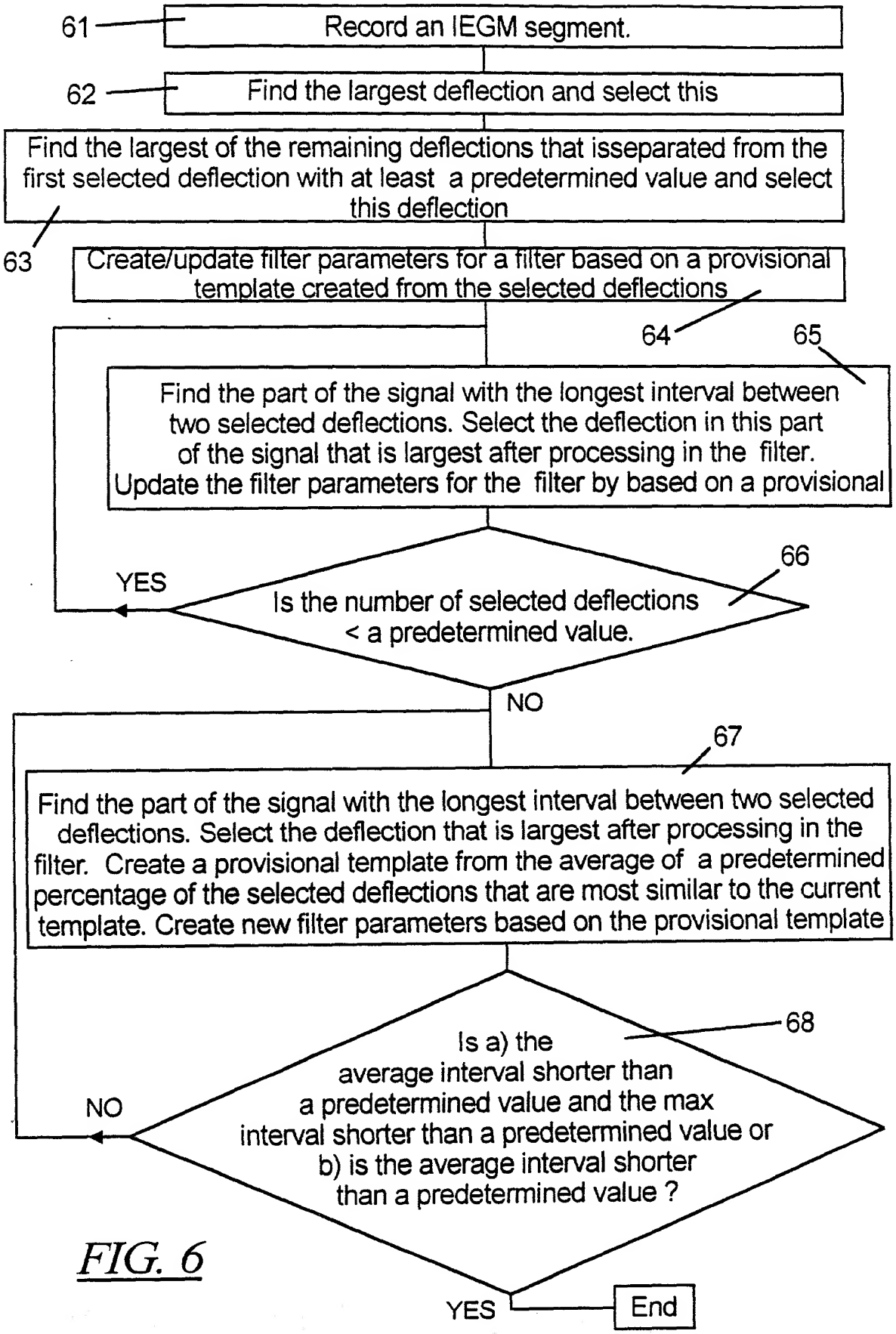

61
Record an IEGM segment.
62
Find the largest deflection and select this
Find the largest of the remaining deflections that isseparated from the first selected deflection with at least a predetermined value and select this deflection
63
Create/update filter parameters for a filter based on a provisional template created from the selected deflections
64
65
Find the part of the signal with the longest interval between two selected deflections. Select the deflection in this part of the signal that is largest after processing in the filter. Update the filter parameters for the filter by based on a provisional
66
YES
Is the number of selected deflections < a predetermined value.
NO
67
Find the part of the signal with the longest interval between two selected deflections. Select the deflection that is largest after processing in the filter. Create a provisional template from the average of a predetermined percentage of the selected deflections that are most similar to the current template. Create new filter parameters based on the provisional template
68
NO
Is a) the average interval shorter than a predetermined value and the max interval shorter than a predetermined value or b) is the average interval shorter than a predetermined value ?
YES
End

FIG. 6

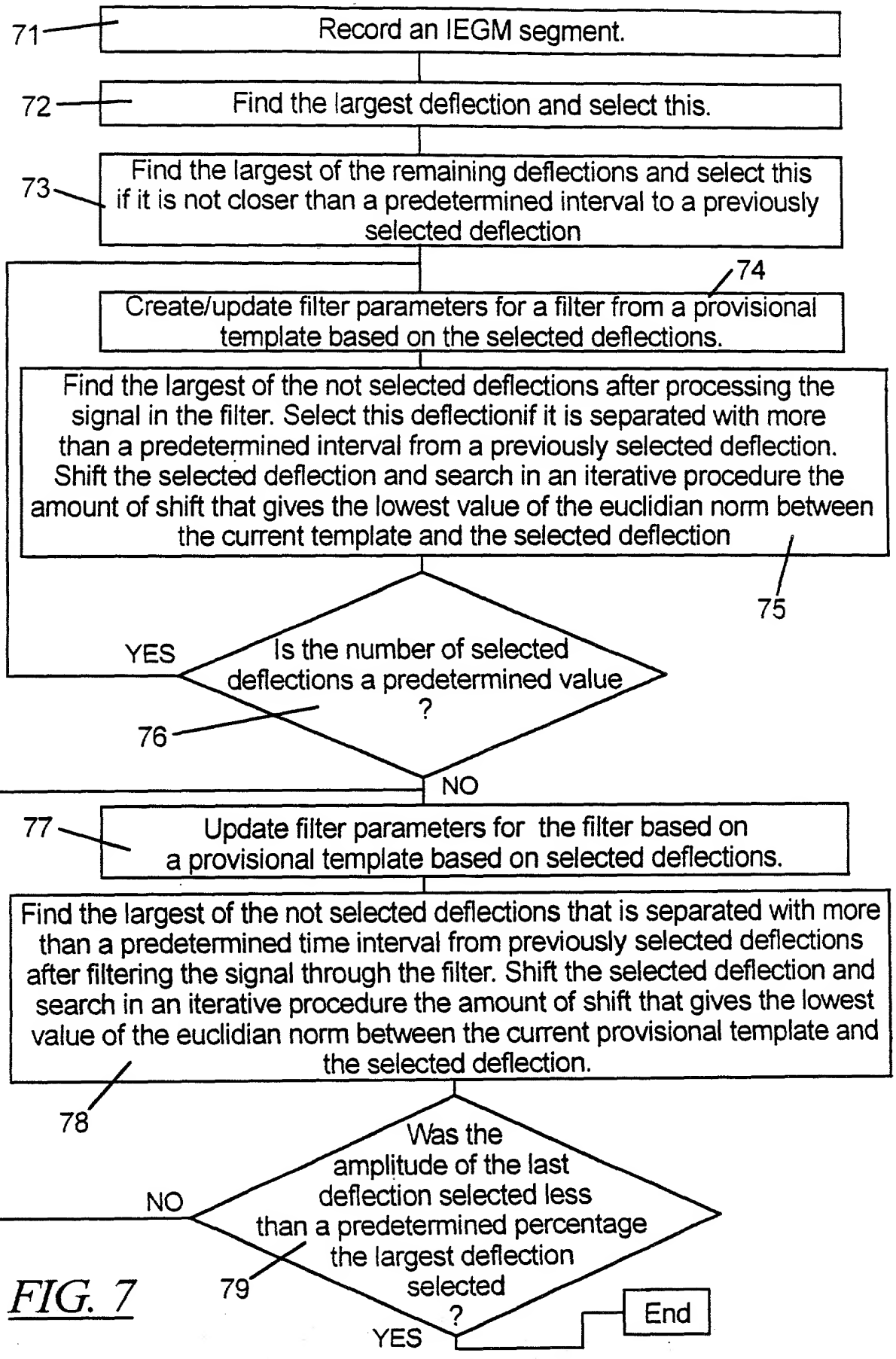

71
Record an IEGM segment.
72
Find the largest deflection and select this.
73
Find the largest of the remaining deflections and select this if it is not closer than a predetermined interval to a previously selected deflection
74
Create/update filter parameters for a filter from a provisional template based on the selected deflections.
Find the largest of the not selected deflections after processing the signal in the filter. Select this deflectionif it is separated with more than a predetermined interval from a previously selected deflection. Shift the selected deflection and search in an iterative procedure the amount of shift that gives the lowest value of the euclidian norm between the current template and the selected deflection
75
YES
Is the number of selected deflections a predetermined value ?
76
NO
77
Update filter parameters for the filter based on a provisional template based on selected deflections.
Find the largest of the not selected deflections that is separated with more than a predetermined time interval from previously selected deflections after filtering the signal through the filter. Shift the selected deflection and search in an iterative procedure the amount of shift that gives the lowest value of the euclidian norm between the current provisional template and the selected deflection.
78
Was the amplitude of the last deflection selected less than a predetermined percentage the largest deflection selected ?
NO
79
YES
End

FIG. 7

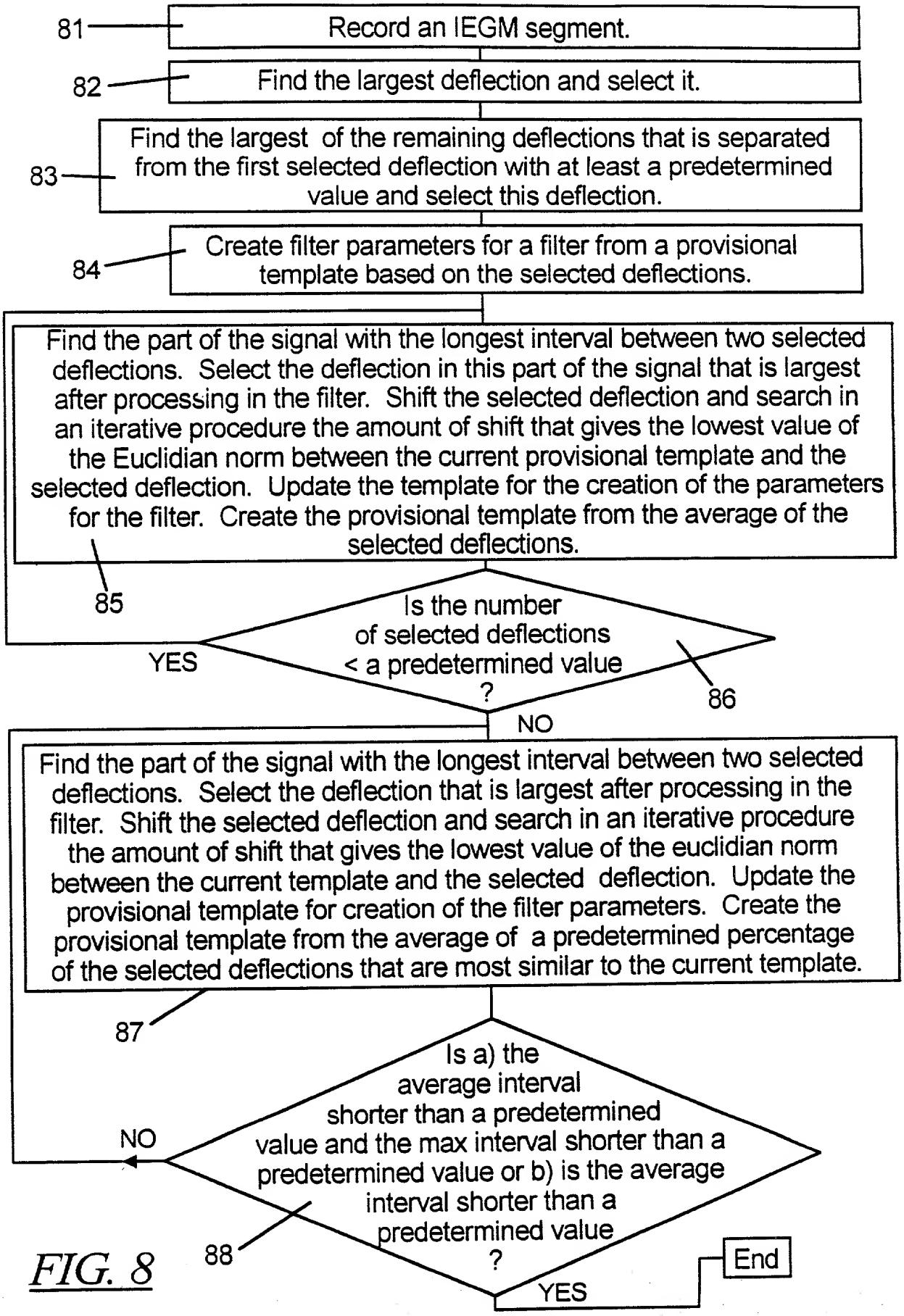

81
Record an IEGM segment.
82
Find the largest deflection and select it.
83
Find the largest of the remaining deflections that is separated from the first selected deflection with at least a predetermined value and select this deflection.
84
Create filter parameters for a filter from a provisional template based on the selected deflections.
Find the part of the signal with the longest interval between two selected deflections. Select the deflection in this part of the signal that is largest after processing in the filter. Shift the selected deflection and search in an iterative procedure the amount of shift that gives the lowest value of the Euclidian norm between the current provisional template and the selected deflection. Update the template for the creation of the parameters for the filter. Create the provisional template from the average of the selected deflections.
85
Is the number of selected deflections < a predetermined value ?
86
YES
NO
Find the part of the signal with the longest interval between two selected deflections. Select the deflection that is largest after processing in the filter. Shift the selected deflection and search in an iterative procedure the amount of shift that gives the lowest value of the euclidian norm between the current template and the selected deflection. Update the provisional template for creation of the filter parameters. Create the provisional template from the average of a predetermined percentage of the selected deflections that are most similar to the current template.
87
Is a) the average interval shorter than a predetermined value and the max interval shorter than a predetermined value or b) is the average interval shorter than a predetermined value ?
88
NO
YES
End

FIG. 8

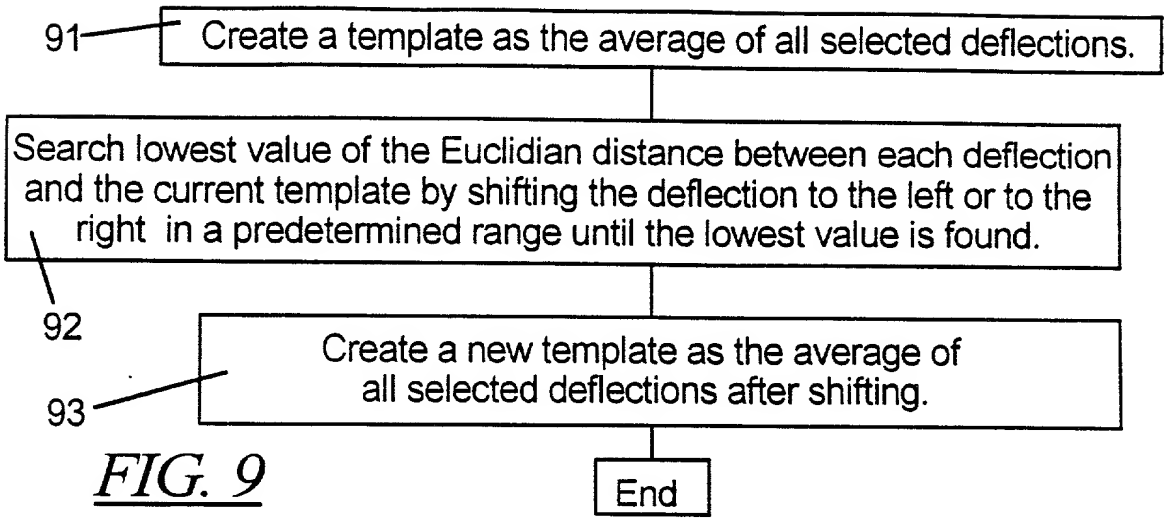
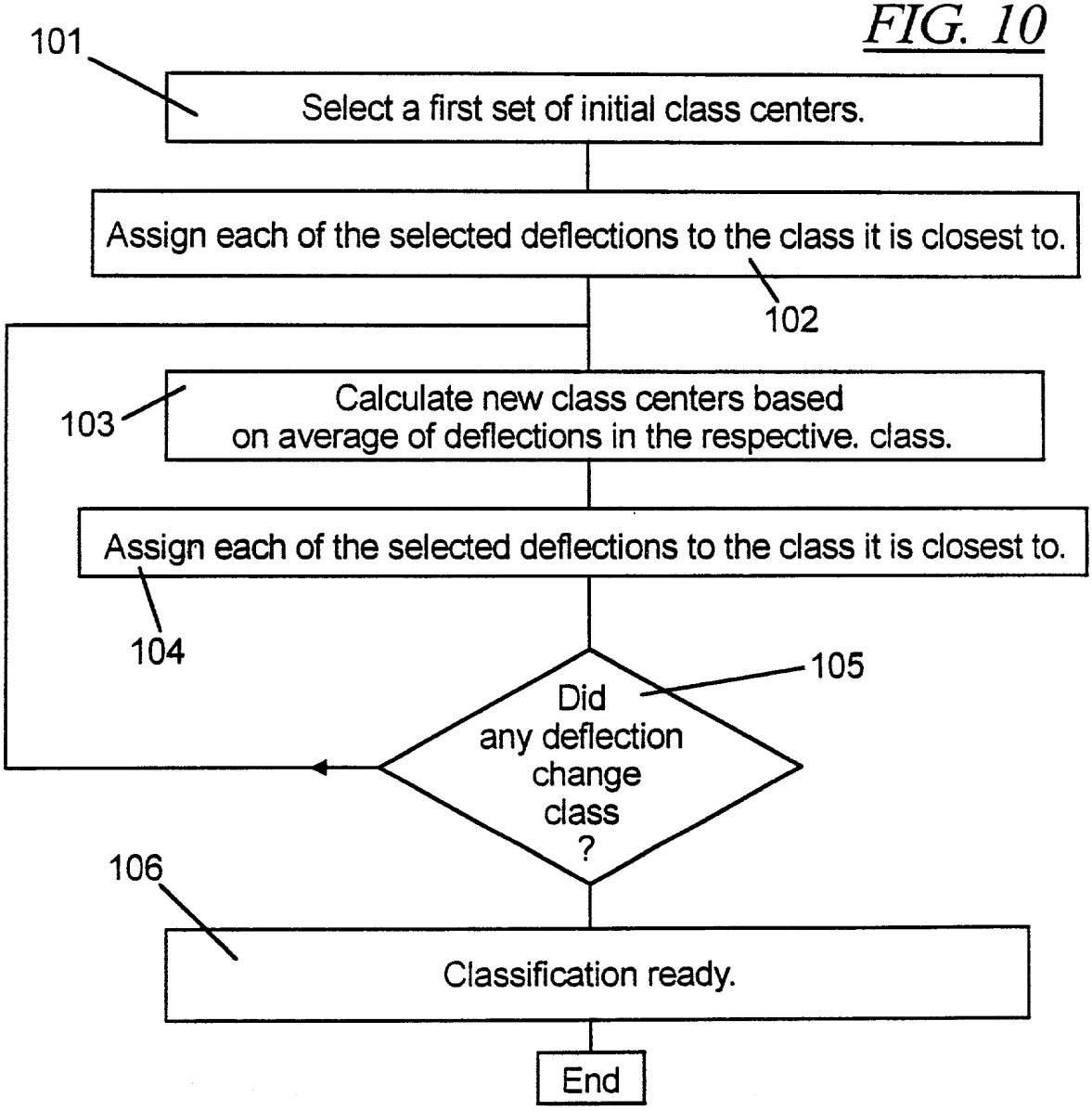


FIG. 9

FIG. 10



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